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EL 961414408

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

2 Application Serial No. ....09/824,901  
 3 Filing Date .....4/02/2001  
 4 Inventorship ..... Burns et al.  
 Applicant ..... Microsoft Corporation  
 5 Group Art Unit ..... 2665  
 Examiner ..... D. Ryman  
 Attorney's Docket No. ....MSI-095USC4  
 Title: Content Provider for Pull Based Intelligent Caching System

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DECLARATION UNDER 37 C.F.R. § 1.131

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first, and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled "Content Provider for Pull Based Intelligent Caching System," as identified above.

The invention was conceived in the United States prior to January 16, 1996, the earliest of the filing dates of U.S. Patent No. 5,732,078 to Arango (hereinafter, "Arango"), and U.S. Patent No. 5,790,935 to Payton (hereinafter, "Payton"). The invention was reduced to practice when the parent application 08/703,487 was filed August 26, 1996. Included herewith are redacted documents which evidence conception of the subject application prior to January 16, 1996, and which evidence reasonable diligence to disclose, prepare, and file the parent application on August 26, 1996.

A Disclosure Document (one page) dated August 29, 1995 evidences that the invention of the subject application was conceived in the United States prior to January 16, 1996, the earliest of the filing dates of Arango and Payton. An invention

1 disclosure Meeting Record (three pages) dated February 7, 1996 evidences an  
2 invention disclosure meeting conducted with Applicant's attorney and inventor Greg  
3 Burns. An email communication (one page) dated April 2, 1996 evidences that a  
4 first draft of the parent application, identified as Attorney's Docket No. MS1-095US,  
5 was completed by April 2, 1996.

6 All statements made herein of my own knowledge are true, and all  
7 statements made on information and belief are believed to be true. Further, these  
8 statements are made with the knowledge that willful false statements and the like  
9 so made are punishable by fine or imprisonment, or both, under Section 1001 of  
10 Title 18 of the United States Code and that such willful false statement may  
11 jeopardize the validity of the application or any patent issued therefrom.

12  
13 \* \* \* \* \*

14 Full name of inventor:

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Full name of inventor: Gregory Burns

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# DISCLOSURE DOCUMENT

EL961414408

August 29th, 1995

## Introduction

The World Wide Web makes it easy for almost anyone to publish Web pages that contain text and graphics. To date there has been much talk about delivering other media types, particularly audio and video, to date video can only be achieved by downloading an entire video file, which sometimes take hours. Audio can be streamed, that is the audio starts to play before the entire file has been downloaded and continues to keep pace, but the quality is very variable and generally poor.

The people contributing to this invention are (alphabetically):

- Greg Burns (GregBur)
- Paul Leach (PaulLe)

## Problem Addressed

- ◆ The Internet bandwidth is a shared resource and the instantaneous bandwidth available to a specific client-server connection fluctuates significantly.
- ◆ There is insufficient aggregate bandwidth on an Internet backbone to support high quality audio or video on a large scale.
- Cable modems and ISDN lines offer a high bandwidth connection between a PC and an Internet Point of Presence. However, the data transfer rate between the POP and the Internet server is constrained by the bandwidth available on the Internet backbone, other intervening networks, and the load on the server itself. This means that users are unable to gain full benefit of high bandwidth connectivity. In particular, users continue to have poor access to interactive multimedia content.

# MS Meeting Record

**Date:** 02/07/96

**Attendees:** Greg Burns;

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project has been renamed "Autobahn."

With many POPs requesting data from a popular web server, the link between that server and the Internet may approach/exceed its bandwidth capacity.

Autobahn will provide a separate broadcast channel (e.g., satellite) between the web server and the POP server, allowing the web server to simultaneously provide data to a large number of POP servers relatively free of bandwidth problems. It is likely that the web server (or an associated server/service) would be responsible for monitoring/predicting content changes at the web server and initiating the broadcasts at those times, freeing the individual Autobahn POPs from responsibility for the task

**Lewis Lee**

**From:** Lewis Lee

**Sent:** Tuesday, April 02, 1996 11:07 AM

I am attaching a first draft of the above patent application.



MS1-095US.P01.doc



MS1-095US.drawings.d  
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